

## APPARATUS FOR SEPARATING A LUMINANCE SIGNAL AND A CHROMINANCE SIGNAL FROM AN NTSC COMPOSITE VIDEO SIGNAL

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### Abstract of the Disclosure

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An apparatus for separating luminance and chrominance signals from an NTSC composite video signal includes first through fourth delayers connected to a digital composite video signal in series for delaying input signals each by 1, a first filter for separating a first chrominance signal from signals output from the first and second delayers; a second filter for separating a second chrominance signal from signals output from the second and third delayers, a vertical edge direction detector for detecting a vertical edge direction by receiving signals output from the second and fourth delayers and receiving the digital composite video signal, a multiplexer for outputting one of the first and second chrominance signals based on a signal output from the vertical edge direction, a chrominance signal outputting unit for receiving the output of the multiplexer and then outputting a perfect chrominance signal, and a luminance signal outputting unit for receiving the signal of the second delayer and receiving the chrominance signal and then outputting a perfect luminance signal. Using the apparatus, cross-luminance and cross-chrominance can be substantially eliminated from the chrominance and luminance signals.

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